TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Form PCT/IPEA/416
ALT0402PCT		
International application No.	International filing date (day/month/year)	Priority date (day/month/year)
PCT/EP2005/050384	24.01.2005	20.02.2004

International Patent Classification (IPC) or national classification and IPC

H01B3/40

Applicant

ALTANA ELECTRICAL INSULATION GMBH

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of _____ sheets, including this cover sheet.

3. This report is also accompanied by ANNEXES, comprising:

a. ☒ *(sent to the applicant and to the International Bureau)* a total of 4 sheets, as follows:

☐ sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).

☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.

b. ☐ *(sent to the International Bureau only)* a total of (indicate type and number of electronic carrier(s))

_____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

☒ Box No. I Basis of the report

☐ Box No. II Priority

☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

☐ Box No. IV Lack of unity of invention

☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

☐ Box No. VI Certain documents cited

☐ Box No. VII Certain defects in the international application

☐ Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/EP2005/050384

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this Item.

☐ This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:

☐ international search (Rule 12.3 and 23.1(b))

☐ publication of the international application (Rule 12.4)

☐ international preliminary examination (Rule 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ the international application as originally filed/furnished

☒ the description:

pages 1-9 as originally filed/furnished

pages* _____ received by this Authority on _____

pages* _____ received by this Authority on _____

☒ the claims:

nos. _____ as originally filed/furnished

nos.* _____ as amended (together with any statement) under Article 19

nos.* 1-11 received by this Authority on 04.10.2005 with letter of 30.09.2005

nos.* _____ received by this Authority on _____

☐ the drawings:

sheets _____ as originally filed/furnished

sheets* _____ received by this Authority on _____

sheets* _____ received by this Authority on _____

☐ a sequence listing and/or any related table(s) see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages _____

☐ the claims, nos. _____

☐ the drawings, sheets/figs _____

☐ the sequence listing *(specify)*: _____

☐ any table(s) related to sequence listing *(specify)*: _____

* *If item 4 applies, some or all of those sheets may be marked "superseded."*

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1 13	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1 13	NO
Industrial applicability (IA)	Claims	1 13	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Claim 1 of the present application discloses a method for producing coated electrical wires, characterized in that coating is carried out using UV-curable baking varnishes containing

a - 50 95% by weight of oxirane based binder(s)

b - 1-10% by weight of UV crosslinking catalysts

e 1-8% by weight of additives.

D1, US4362263, also discloses a method for producing coated electrical wires (example 1 and column 2 lines 60-66: the wire passes through the composition). The coating is UV-curable (example and column 2 line 19). The composition of example 1 of D1 contains

a - 75% by weight (15 parts by weight to a total of 20 parts by weight) of an oxirane based binder (ERL 4221, DCENPG and ERRA 4211, column 3 lines 9-16) and

b - 25% by weight of a UV crosslinker (FC 505, line 20).

In example 1 there are no additives (e) as per claim 1 of the present application present in the composition.

In D1 the epoxy compositions are also not explicitly referred to as baking varnishes. Nevertheless, the coating compositions disclosed in D1 do meet the

requirement that qualifies them as baking varnishes. On page 1 lines 21-31 of the present application it is mentioned that baking varnishes are characterized primarily by their thermoplastic properties.
Thermoplasticity is also described in respect of the compositions of D1, since the compositions of D1 are explicitly compositions which melt at a certain temperature (i.e. are thermoplastic) but without burning (column 1 lines 44-53 and example 1).
Moreover, claim 1 of the present application does not in fact formally concern the use of particular compositions as baking varnish, but instead concerns the use of compositions which may be suitable as baking varnishes, i.e. which possess the typical properties of baking varnishes (such as, indeed, the thermoplasticity).
In actual fact the compositions disclosed in D1 are suitable for use as a baking varnish and are also used for winding coils (D1, claim 1 discloses a wire for a magnetic coil).

The subject matter of claim 1 of the present application differs from D1, example 1, in that the compositions used in claim 1 contain, among other ingredients, 1-8% by weight of additives, but primarily not more than 10% by weight of a UV crosslinking catalyst.

The use of conventional additives in epoxy compositions is not inventive for a person skilled in the art, since evidently these additives in the present application do not solve any particular technical problem.

Apart from the usual initiation of crosslinking, the

application also does not show that the use of 1-10% by weight of the UV crosslinker solves any particular technical problem.

The subjective problem addressed by the application, according to the description (page 3 lines 11-12), is that of developing a method for coating electrical wires using a solvent-free baking varnish which is curable with UV light.
This problem is also described in D1 (solvent-free in column 2 line 51 and UV curable in example 1).
Starting out from D1, therefore, the objective problem was that of providing an alternative method for coating electrical wires.

The solution disclosed in the application to this problem is to use 1-10% of the UV crosslinker. Example 1 of D1 also discloses the use of a crosslinker. In example 1 the concentration of this component is 25% by weight. From column 3 lines 22-23, however, a person skilled in the art is aware that amounts above 0.1% ensure crosslinking. 1-10% by weight is between 0.1% and 25% by weight in example 1. To a person skilled in the art, therefore, it is not surprising that an amount of crosslinker of between 1% and 10% by weight is able successfully to initiate crosslinking.

The subject matter of claim 1 is not inventive over D1. The application does not show how the features disclosed in claims 2-13 solve a technical problem in a non-obvious way.

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The subject matter of claims 2-13 is obvious in relation to D1.